published every other friday for the employees of sandia corporation, contractor to the atomic energy commission

Vol. 8, No. 23

ALBUQUERQUE, NEW MEXICO

November 16, 1956

Electronic 'Brain' Coming to Sandia Corporation



UNCOMFORTABLE as it may be, piling six people into a midget MG sports car is one way (but not the advised way) to help relieve the traffic problem on Sandia Base. Employee Services, 3122, has announced a new listing service this week in an effort to promote more carpools among employees.

Helping to illustrate the idea above is Mary Roth, 3162, in the driver's seat, and members of the Corporation's photo lab, 2462. In the front seat (L to R) Bob Ezell and Dick Hodges. In the back are Tony Atler, Louis Erne and Bill Laskar. Carpools offer many advantages to their members.

New Driver-Rider Service To Help Ease Auto Traffic

Results of a recent survey of cars leaving the three Sandia Base gates point to a method of speeding up traffic to and from work. Of the average 4000 cars counted leaving the base between 4:30 and 5:30, only 47 per cent carried more than two persons.

Eight hundred carried only the driver; 1300 cars had a driver and one passenger.

If each car which had only one or two persons in it had carried five, the number of cars leaving the gates during rush hours would have been reduced by 36 per cent. It would remove 1420 cars from the stream of traffic.

In an effort to encourage and promote more car pools, Employee Services, 3122, has organized a listing service for rides wanted and drivers needed for car pools. Anyone desiring to list a ride wanted or a ride available is urged to phone Roseanne Bascom, Ext.

Full cooperation from employees in forming more car pools will reduce parking problems, speed up traffic, reduce driving fatigue, and generally contribute to safety, Employee Services said. Members of the many established car pools report that this method of getting to and from work has many advantages—the chief one being economic.

In a five-man car pool, each driver absorbs the cost of one day's driving, and rides free the other four days of the week, thus thus saving 80 per cent of normal driving costs if he drove his car every day of the week.

It is suggested that all drivers check with their insurance company to assure themselves that their automobile insurance is valid when participating in such a carEarly in this stepped up technological age industry issued a call for mechanical wizards. Such accelerated mathematical performance was demanded that man alone could not perform the calculations needed. It took an army of specialists months of hard labor to solve some of the problems.

This was not feasible. Answers were needed "yesterday."

Scientists recognized their inability to do these jobs fast enough so they made machines which could.

As a result we have today's "electronic brains." These computing machines of the business world far outstrip the performance of mathematicians and their hand calculators. They perform services with speed and accuracy that near the miraculous.

3 Scientists Win Nobel Prize for Bell Labs Work

Three U. S. scientists who did their work in the laboratories of the Bell Telephone Company, have been awarded the 1956 Nobel Prize in physics for their development of the transistor.

The winners are William Shockley of Pasadena, Calif., Jay Bardeen, Urbana, Ill., and Walter H. Brattain, Murray Hill, N. J. They will share in the \$38,633 physics award.

The transistors they have developed perform virtually every function of the vacuum tubes in electronics and communications but need only a fraction of the current and space of the old vacuum devices.

NOTICE

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26149.

After this issue, notices seeking rides, riders and car pools will not be carried in the Sandia Lab News. A special service to help employees form car pools is now maintained by Employee Services Division, 3122, and such notices sent to this paper will be turned over to that office. Information concerning the service may be secured by calling ext.

Sandia Corporation has been studying this type of equipment the past 18 months to determine how well it could be utilized here. As a result of a special committee's recommendations an IBM "705" Electronic Data Processing Machine has been ordered. The machine will be ready for use at Sandia Corporation by May, 1958.

Members of the committee are: G. A. Fowler 5000, E. J. Cooney 4100, C. J. McGarr 2340, C. W. Dickinson 4110, E. W. Baldwin 4130, W. T. Moffatt 5240, H. W. Maglidt 7220 and D. J. Yarbrough 7421.

Sandia's new Electronic Data Processing Machine (EDPM) will serve as a tool to make time more valuable. It will turn mathematical monotony into agility and raise accuracy to a high level.

For example, the computer digests information at the rate of 15,000 numerical or alphabetical characters per second. Personnel in various organizations will be able to "look into the future" and draw a clearer statistical picture of problems they are to encounter at some future time.

Speedy Processing

It will be possible to process information more rapidly— information about material costs, labor costs, production time, inventories. Data concerning future programs may be processed in a matter of minutes, where the time is now measured in hours.

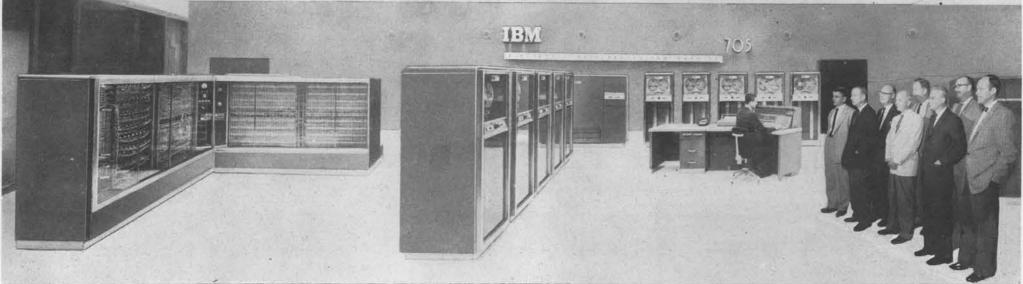
If the abilities of the EDPM make it appear that all of the man calculating and figuring work around the Corporation will be taken over, don't believe it.

Only high volume jobs are practical for the EDPM. The average job which involves computing can be done more economically under present procedures.

It's the problem which takes a multitude of factors into consideration that the EDPM takes in stride. "Programming" a problem for the EDPM may take several man-years. Already work is underway assembling facts and figures which will go into "questions" for the machine 18 months hence. This work is being done in the Electronic Data Processing Machine Division, 4113. Frank H. Grubbs is director of these activi-

See ELECTRONIC BRAIN,

Page four



ELECTRONIC "MASTER MIND"—An IBM Electronic Data Processing Machine, such as the one pictured above, will be in use by Sandia Corporation by about May, 1958. This composite photograph shows members of

the committee which has been making a feasibility study of the device for the past 18 months. L to R: F. H. Grubbs, who is coordinating planning activities of the program, C. J. McGarr, E. W. Baldwin, H. W. Maglidt,

W. T. Moffatt, C. W. Dickinson (Chairman), D. J. Yarbrough and G. A. Fowler. E. J. Cooney, also a member of the committee, was unable to be present for the photograph. The committee determined Sandia's use of EDPM.



Photography by Photographic and Reproduction Division

Deadline Friday noon of week prior to publication

Telephones Sandia Base 6-4411 Ext. 25253, 26135

Office: Room 10, Bldg. 829, Employee Services

Cherry Fellner, Don Graham, Assistant Editors Robert S. Gillespie, Editor



Date With A Mirror

Self-examination of our job performance is increasing in popularity. We have already presented one such test in this space. (July 27, 1956).

Here's another test presented by the Hollinger Consolidated Gold Mines, Ltd., Timmins, Ontario, as another method of determining how you are getting along.

- 1. Are you making satisfactory progress on job know-how?
- 2. Do you add to pleasures of work by friendships and social contacts with fellow employees?
- 3. Do you give serious thought to methods of advancing on the job?
- 4. Do you add to your interest in work by exploring new ideas and new methods?
- 5. Do you try to benefit from knowledge and experience of others?
- 6. Do you do what you can personally to improve good will among people in your organization?
- 7. Have you decided on a course of action to increase your job satisfaction in the future?

Each "yes" answer is worth 10 points. A score of 60-70 is excellent, 30-60 is just okay and 0-30 is poor.



FIFTEEN DEER divided among five hunters was the take of a recent hunting expedition to Monticello, Utah. Shown here are the five hunters and six of the deer. L to R are Leo Garcia, Stanley Garcia, Wilfred Sanchez, 2414-3, only Sandian in the group, Jimmy Wesley and Charles Tapia, all residents of Albuquerque.

Skiers Dine, Dance To Open '57 Season To Be Greeted With

The Albuquerque Ski Club is getting sportsmen in a winter mood by presenting a combination dinner-dance and fashion show tomorrow, according to Ross Beach, 2553, committee chairman.

Activities will get underway at 7:30 p.m. with a full-course dinner at the Simms Building Restaurant. Afterwards there will be dancing to the music of Tommy Kelly and his orchestra. The latest in skiing fashions will be modeled during the evening.

Tickets, which are \$3 per person, may be purchased at the door or from any ski club member. Everyone is invited!

Tea Dance Invitation

All single women employees of Sandia Corporation have been invited to attend a tea dance Saturday, Nov. 24, from 2:30 to 5:30 p.m. at the KAFB Officer's Club. Hosts for the occasion will be Kirtland's BOQ Club.

Christmas Season Organization Parties

Organization parties are breaking out all over with the advent of the holiday season.

A "Fall Frolic" will be held by Organization 3100 Saturday, Nov. 24 at the Coronado Club. Festivities will start at 7 p.m. with a buffet dinner followed by dancing until 1 a.m. to the music of Muench.

Organization 2500 will hold its Christmas dinner-dance Friday, Dec. 7 also at the Coronado Club. Tom Kelly will provide music for dining and dancing from 6:30 p.m. to 1 a.m.

At Nuclear Seminar

Kenneth G. Overbury, supervisor of Physical Standards Division 1651, will spend 15 days at a Nuclear Science Seminar at the Naval Reserve Training Center, Oak Ridge, Tenn., starting Nov. 25.

Kenneth holds a lieutenant colonel commission in the Air Force Reserve. In Albuquerque he is attached to the 9865th Air Reserve Squadron.





IMPRESSIVE CATCH-George Zimmerman, 1245, stands by his prize fish from Guaymas, Mexico. Roy Winters and Robert Schwartz, both of 2723-3, were among the party that had week's successful fishing at the popular Mexican resort.

Wedding Anniversaries

November must be the month for lasting marriages. Four Sandia couples are observing their 20th wedding anniversary and another their 19th.

Edith and Floyd Irwin celebrated their anniversary on Wednesday. On hand for the festivities was their college-student son, 18, and 11-year-old daughter. Edith has been in 2711 for five years and Floyd has been a member of organization 2232 for four years.

It will be a combined Thanksgiving and 20th anniversary for Ruth and Paul Scates, 2711-5, on the 22nd. As far as they can remember this is the first time Thanksgiving has fallen on their anniversary. Their college-age daughter, Ruth, will help them celebrate.

Mr. and Mrs. J. B. Sweatman, 2132-4, celebrated their 19th wedding anniversary Nov. 6.

It's also wedding anniversary time for Mr. and Mrs. Jacob Barreras, who will observe their 17th on Nov. 17, and for Mr. and Mrs. Jose S. Montoya, who will have been married 18 years on the 28th. Both husbands are in 2711.

A 20th anniversary will be celebrated on Nov. 25th by Mr. and Mrs. Robert Hendricks. Bob works in 5131 and Leigh in 5125.

Twenty years of marriage were also marked Nov. 7 by Mr. and Mrs. J. M. Gustafson. "Gus" is supervisor of 2711. The couple has three children in school in Albu-

Weddings

Josephine Mounyo has set Dec. 1 for her marriage to Lt. Ted Harris of Shiprock,



Miss Mounyo

reception afterwards. "Jo" is in organization 2342 and has been with San-

dia Corporation

since July, 1953.

Sandian Connie Blakeney will marry S/Sgt. John DeWitt tomorrow evening

Church. The groom is stationed at Manzano Base and is originally from Cartersville, Mo.

at 7:30 at the

First Methodist

Connie has Miss Blakeney been in 7225 since last Janu-

ary and is attached to 1621. After a two-weeks' honeymoon the couple will reside in Albuquerque.

Assigned to Japan

Navy Lt. (jg) Joe Sheridan, a former Sandian, writes that he expects to be in Japan for the next year. He is assigned as Public Works Officer of a "very pretty" little base about 12 miles from Yokohama.

His mailing address is NavCom-Fac-Navy No. 830 c/o FPO, San Francisco, Calif.

Cold Weather Picnic

Cold weather failed to daunt the enthusiasm of organization 2333-3 and their families, determined to

The families had a wiener roast in the Sandia Mountains Nov. 3 with four bonfires and food aplenty helping to make the outing a

Housewarming

Members of 5120 held a recent surprise housewarming for C. R. "Mac" McAllister, 5121, and his family. Their new home is at 1032 Espejo NE.



ELVIS PRESLEY apparently appeals to even the pre-school youngsters in Albuquerque. Darrell A. Joyner, 2723, maintains his daughter, Patricia Ann, goes into a jig and sway everytime she hears the 'teen-age idol. She's even willing to tricycle her way to Hollywood to see him.

"Lads" Sing in Texas

Sandia's "Lads of Enchantment" recently attended a district contest in Houston, Tex. They headlined the show and presented the traveling trophy to the new district champions.

Prior to the contest the singing group toured Texas, Colorado and New Mexico.

Caravan Club Elects

Three Sandians were among the new officers elected by the Amateur Radio Caravan Club of New Mexico recently. James Lareau. 5221, is the new Caravan Master with Willie Petty, 5512, Assistant Caravan Master. Keith Nelson, 1412, was elected secretary.

The club will meet Wednesday, Nov. 28, at 8 p.m. in the Radiation Therapy Lab of Lovelace Clinic.

Featured in WE

The hacienda-like 171-year-old home of Sandian Charlie Whitmer, 2112, is one of four dwelings featured in the Sept.-Oct. issue of WE magazine.

"The Portfolio of Interesting Houses" also includes one of Belgian-Swiss architecture, a modern house and an early 19th century home. Colored and black and white photos of exteriors and interiors are shown.

The home which Charlie and his wife restored is located at 6807 Carlton NW in Zia Gardens. It is constructed of terrone brick with corner fireplaces in each room. The early New Mexican home was previously featured in the Sandia Lab News Nov. 4, 1955.

40th Anniversary

Celebrating their 40th wedding anniversary Nov. 10 were Olav Nerhus, 1281, and his wife, Anna.

The couple marked the occasion with a trip to Denver, Colo., to visit with their daughter and granddaughter and friends. The Nerhus' have another daughter residing in Rockford, Ill., a son in Chicago and six other grandchil-

Mr. and Mrs. Nerhus were married in 1916 at Hartford, Conn. They came to Albuquerque in September, 1949.

Congratulations

Mr. and Mrs. Donald Lawson, 1461-1, a son, William Eugene, on Nov. 2

Mr. and Mrs. Kenneth Peterson, 2124-2, a daughter on Nov. 2.

Mr. and Mrs. Carl Eden, 2153, a son, Dale Lee, on Oct. 21.

Mr. and Mrs. Rudolph W. Herrmann, 5253, a daughter, Susan Louise, on Nov. 5.

Mr. and Mrs. Keith R. Baltz, 5215, a son, David Keith, on Oct.

Mr. and Mrs. Robert F. Thomas, 2711, a son, Robert Mark, on Nov.

Mr. and Mrs. Bernard S. Stiefeld, 2542-1, a daughter on Nov. 6.

Mr. and Mrs. A. F. Lawrence, 1614-2, a daughter, Martha Alice, on Oct. 30

Mr. and Mrs. Marcial Valdez, 7221, a son, Marc Phillip, on Oct. 30. Mrs. Valdez was formerly in 7225.

Mr. and Mrs. Richard Wiesch a son, David Richard, on Nov. 3. Mrs. Wiesch was formerly in 7225.

Mr. and Mrs. Serafino Carrillo, 2351-2, a son, Mark Anthony, on Nov. 5.

Sympathy

To Candy Martinez, 2462, for the death of her father in Santa Fe, Oct. 28.

To Jose Garcia, 2417, for the recent death of his mother in Belen.

To Nathan Eytcheson, 2124-2, for the recent death of his mother in Duluth, Minn.



Roberta Hunnicutt

Typists Tips:

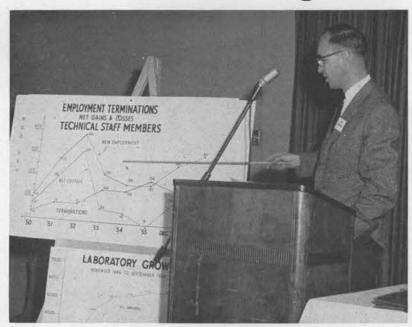
Typist Draws Straight Line on Paper While It's Still in Machine

The typing duties of Roberta Hunnicutt, 7225, assigned to 1455, include helping prepare progress reports, letters and dittos.

"Bobbie" started with the Corporation in June, 1954, and has worked as a typist since then.

Among the typing tips she finds useful is a way to draw straight lines on copy without removing the paper from the typewriter. Bobbie utilizes the little hole found in the middle of the card holders on many models. Put a pencil tip in the hole, move the carriage across, and there is the straight line.

Sandia's Line Recruiters Set For 1957 College Campaign



RECRUITING GOALS for 1957 were outlined at a recent meeting of Sandia's top officials by R. P. Powell, 3100. The meeting discussed the problems and responsibilities which will confront the line recruiters in the coming campaign for new employees.

ALO Organization Changes Announced

Several organization and personnel changes have been announced by the AEC's Albuquerque Operations Office.



W. H. Lawrence R. H. Ball

A new position of Coordinator, Research Applications, has been created. Russell H. Ball, formerly Director, Office of Classification, has been promoted to the new position. His assignment will include coordination of the ALO technical information program.

The Office of Classification, which has been redesignated the Classification Division, will have William H. Lawrence, former Assistant Director, as Director. Lawrence will report to Paul Ager, Assistant Manager in charge of Advance Planning.

The organizational designation of another activity has been changed. David W. Persons, who has been director of the now discontinued Facility Plans Division, will continue as Coordinator, Research Support.

C. T. Anderson Goes To WE's New Omaha Works

C. T. "Ted" Anderson has transferred from Sandia Corporation to Western Electric Company's new facility in Omaha.

Ted, who was supervisor of Organization Engineering Division, 2514, will be Department Chief of Wage and Salary Administration at Omaha. He came to Sandia in March, 1950, and has been in Wage and Salary Administration, now Industrial Enugineering, since then.

For the past year and a half he has been a member of the committee making a special feasibility study of high speed computers.

The Omaha Works of WE is temporarily located in the city of Omaha while a new building is being constructed on the outskirts of the city.

SW Rocket Society Elects Officers Dec. 6

The Southwestern Rocket Society will hold a meeting and election of officers Thursday, Dec. 6, at 7:30 in UNM Mitchell Hall, Room 101.

Wallace T. Smith, 5215, club official, said that rocket movies will also be presented and everyone interested in such activities is invited to attend.

O. G. Owens Writes Article for Duke U.

Mathematical Journal

An article by O. Glynn Owens,
5123, appeared in the September
issue of the Duke University Mathematical Journal. "Polynomial Solutions of the Cylindrical Wave
Equations" is the title of the article.

The paper grew out of diffraction and shock wave problems Mr. Owens encountered in his work as a mathematical-physicist in the Systems Analysis Department, research organization. The problem required investigation of polynomial solutions.

Mr. Owens has been employed at Sandia for two years. Prior to coming to the Corporation he was an assistant professor of mathematics at the University of Wisconsin for five years.

He earned his Ph.D. degree from the University of California, Berkeley, in 1941.

Muscular Dystrophy Ass'n Drive Set for Albuquerque Area

Volunteers will be calling at Albuquerque homes next Friday and Saturday, Nov. 23 and 24, for donations to the Muscular Dystrophy Association.

The campaign for funds is sponsored locally by the Fraternal Order of Fire Fighter's Lodge No. 1.

The incurable disease which gradually weakens the muscles is attacking more than 200,000 people in America — two-thirds of them children for whom the disease is fatal.

The association provides patient services, clinics and research.

Tech Writers Meet

The Albuquerque Chapter of the Society of Technical Writers will meet Tuesday, Nov. 20, at 7:30 p.m. at the Sandia Base Officer's Club, Max Weber, 5120, program chairman, reports.

A short practical course in technical writing for industry will be discussed by L. F. Parman and W. F. Carstens, both of the Reports Section of the Technical Information Division, 7223.

Industrial Mobilization AOA Speaker's Subject

The Albuquerque Post of the American Ordnance Association will meet Monday, Nov. 19. "Industrial Mobilization Planning," a subject of interest to many Sandia Corporation employees who are members of the group, will be discussed by Walter L. Tann, Bureau of Ordnance, Department of the

The meeting will begin at 7:30 p.m. in Rm. 101 of Mitchell Hall on the University of New Mexico Campus.

Sandia Corporation's 1957 college recruiting got off to an official start last week when about 125 members of the Laboratory staff heard discussed the problems, methods and goals of the campaign.

Meeting at the Coronado Club, they heard several of Sandia's top officials talk on the program.

Max H. Howarth, Vice-President and General Manager, opened the meeting with a discussion of the problems and responsibilities which will confront the line recruiters.

"Despite the competition we will face," Mr. Howarth said, "Sandia cannot afford to sacrifice quality to secure new employees."

Mr. Howarth also told of the aids to recruiting which Sandia is providing this year. Included in these aids he listed increased advertising schedules, a new manual, recruiter refresher training courses and cooperation with the Bell System recruiting program.

Tells of Goals

R. B. Powell, Superintendent of Personnel and Public Relations, listed the employment goals and how Sandia proposes to meet them.

Using charts he told of past recruiting campaigns and charted the path for 1957. Mr. Powell reported on the 1956 summer employment program and the projected plan for 1957.

"Sandia's educational aids program," Mr. Powell said, "is important in the future development of new college recruits and is a great help in interesting students in Sandia Corporation."

Fred J. Given, Vice-President, Research & Development Technical Services, talked on the importance of the line organization in college recruiting.

He pointed out that the Personnel organization is the coordinator in helping the line recruiter follow up his cases. Drawing on his own experience in recruiting, Mr. Given told the line recruiters what will be their probable assignment and how important it is to Sandia.

"We should remember," Mr. Given emphasized, "the majority of Sandia Corporation's hires come from college recruiting and therefore the majority of our effort should be made during the college recruiting season.

"The personal contact Sandia's line recruiters have with both the Laboratory and with the graduating students makes the Sandians especially effective in securing new college graduates."

PhD's Needed

G. A. Fowler, Vice-President Research, spoke to the group on the importance of securing scientists and engineers with PhD degrees. "Men with these degrees add greatly to the effectiveness of our research program," he said.

R. P. Lutz, Vice-President Operations, described the opportunities for engineers in the 2000 organization. He also told of his past experiences in doing recruiting work for the Bell System.

James W. McRae, President of Sandia Corporation, summarized the important points of the meeting and outlined the future program of the Laboratory.

The meeting closed after an open discussion period.

2 Sandians Winners In Recent Election

Congratulations are extended to two Sandia employees who were successful political candidates.

Harry E. Kinney, 1281, the Republican candidate for Bernalillo County Commissioner for District 1, defeated his opponent.

Charles Hines, 1210, won out over his competitor for Representative to the State Legislature in position No. 9. He also is a Republican.



VITAL WORK, important to America's freedom is performed daily at Sandia Corporation. Vital to the work of the Corporation are physicists. If you have a friend or relative whom you feel is a qualified physicist, contact the Employee Referral Program, George Elliott, ext. 20151, for more information about Sandia's needs.

T. L. Tuffnell Joins Sandia; Comes Here From WE Allentown

A recent transfer to Sandia from the Bell System is Thomas L. Tuff-

nell, supervisor of the newly created SA Tube Components Section 2543-4.

Mr. Tuffnell started with Bell Laboratories in 1927 as a student assistant in submarine telegraph

rine telegraph T. L. Tuffnell development.
Eight years later he became a member of the technical staff.

In 1941 he transferred to Western Electric in New York and after a short while was named operating section chief on reflex oscillator assembly.

From 1947 until coming to Sandia he was an engineer on carrier tubes at the WE Allentown, Pa., plant.

His wife and two sons have arrived to make their home in Albuquerque.

Gun Club Disbands, Presents United Fund With Total Treasury

A recently-disbanded club, composed of Sandians, contributed more than \$200 to the United Fund Drive last week.

Roy Brett, 2452, president of the Circle 10 Rifle and Pistol Club, presented the check for \$202.64, representing money remaining in the club's treasury and funds realized from the sale of guns and equipment.

The club was organized in 1951 and was active through 1955. At one time it numbered between 50 and 55 members, mainly Sandia Corporation security guards.

Former club officers still at Sandie include: Robin Kelley 2452, range officer; J T. Gammon 2571, secretary and treasurer, and Bob Fox 1472, vice-president.

Certificates Go To Engineers Nov. 26

The New Mexico Society of Professional Engineers will meet Monday, Nov. 26, at 7 p.m. at La Placita Dining Rooms in Old Town, A. B. Metzger, 3210, reports.

Dr. E. R. Harrington, Director of Secondary Education, Albuquerque School System, will speak on the subject of "Young Engineers."

State Board Certificates will be presented to new registrants during the meeting. It is open to all engineers regardless of whether they are members.

Reservations may be obtained by calling Metzger, ext. 23258.

IRE Professional Groups Meetings Next 2 Weeks

Six Professional Groups of the Institute of Radio Engineers will be meeting in the next two weeks, John McLay, 1455, group coordinator reports.

Circuit Theory

The PGTC will meet Nov. 19 at 8 p.m. in Rm. 217 of the Electrical Engineering Building, UNM. W. E. Brown, 1454, will discuss non-linear filter theory.

Telemetry and Remote Control

The PGTRC will meet Nov. 20 at 8 p.m. in Rm. 217 of the EE Bldg., UNM. "Transmission and Reduction of Mili-Volt Data Using a Pulse Width Telemetering System" is the title of a talk to be presented by C. E. Hoefener, Western District Sales Manager of the Applied Science Corporation of Princeton, N. J.

Audio

The PGA will meet at 8 p.m. Nov. 21 at Reddy's Rendezvous at Fifth and Silver downtown. "Electronic Tone Generation and Radiation" is the title of a talk to be presented by Dr. D. W. Martin, Chief Engineer, Baldwin Piano Co.

Nuclear Science

The Los Alamos PGNS has issued an invitation to the Albuquerque group to attend a meeting at the Los Alamos High School Nov. 28 at 8 p.m. A. B. Church, 1463, will narrate a movie of Los Alamos before the Manhattan District.

Antennas and Propagation, Microwave Theory

A joint meeting of the PGAP and PGMTT is scheduled Nov. 21 at 8 p.m. in the student lounge of the EE Bldg., UNM. Dr. R. K. Moore, head of the UNM Electrical Engineering Department and Sandia Consultant, will lead a discussion of frequency allocation problems.

Income Tax Group Retains Attorney

Members of the Sandia Employees Income Tax Committee have hired an attorney in their attempt to secure a reversal of a recent income tax ruling.

The ruling makes moving and travel expenses incurred in accepting employment, and for which reimbursement is received, taxable as income. The committee officers hope that the case will reach Federal court in February or March of 1957.

Members of the committee have assessed themselves to take care of the court costs, lawyers and committee operating expenses.

R. F. Nylander, 1455, has been named to replace Arthur Weiner as the committee recording secretary. Weiner is no longer with Sandia Corporation.

A Washington news release of Oct. 30 stated that Rep. Robert H. Mollohan of West Virginia has taken up the cause for the Sandians. Rep. Mollohan is chairman of the Legal and Monetary Affairs Subcommittee on Government Operations.

PROMOTIO

JOHN E. ANDERSON to supervisor of Accounting and Tabulat-

ing Methods Division 4113, Business Methods Department.

John started with the Corporation in June, 1952, as an accountant and in Feb., 1953, was pro-



moted to supervisor of section 4113-1.

Immediately prior to coming to Sandia Corporation he operated his own tax and accounting service in Albuquerque. After World War II John was employed for three years by accounting firms here and then taught accounting at UNM for three years.

He majored in English at New Mexico State Teachers College, has a Bachelor's degree in Business Administration from UNM, and worked toward his Master's in economics at Stanford University.

His membership in professional groups includes the New Mexico Society of Certified Public Accountants, American Association of University Professors and American Economic Society.

During World War II John served three years in the Navy, part of the time as a deck officer on board the USS Charles Ausburne. He attended USNR Midshipman School at Columbia University where he was first in his class of 900.

ARTHUR B. COLE to supervisor of newly-created Operations Division B VIII,



7327. Art first joined Sandia Corporation in April, 1951, as mechanical a engineer. In June, 1952, he left for four months and

returned as a design engineer.

He was previously employed a year by Pratt & Whitney Aircraft, East Hartford, Conn., as a layout draftsman and also worked two years for Hamilton Standard Propellers in the same city as a detail draftsman.

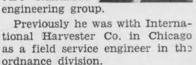
A graduate of the University of New Mexico, Arthur has a Bachelor's degree in Mechanical Engineering. He is a member of Pi Tau Sigma, national honorary engineering professional society.

During World War II, he served in the Air Corps.

L. E. SNODGRASS to supervisor of Organization Engineering Divi-

sion 2514, Industrial Engineering Department.





Larry was also a design layout draftsman for four years with the Shaw-Box Crane and Hoist Co., of Muskegon, Mich.

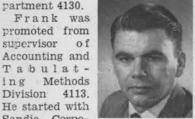
During World War II he was a Navy instructor in small arms and aircraft ordnance.

Larry has a Bachelor's degree in Industrial Engineering from the Illinois Institute of Technology and is presently working on his Master's in Business Administration at UNM.

He is president of the Council of Technical and Scientific Societies, director of the Albuquerque chapter of AIIE, and member of the Society of Automotive Engineers, Tau Beta Pi, Sigma Iota Epsilon and American Ordnance Assn.

FRANK H. GRUBBS to manager of Payroll, Tabulating and Vouchering De-

partment 4130. Frank was promoted from supervisor of Accounting and Tabulat ing Methods Division 4113.



Sandia Corporation in May, 1950, and late the same year was made supervisor of Standard Cost Section 4152-2.

A native of Albuquerque, Frank attended the Western School for Private Secretaries and has a Bachelor's degree in Business Administration from UNM.

He was employed two years as an accountant at the Coca Cola Bottling Co. in Albuquerque.

During World War II Frank served four years in the Signal Corps, including overseas duty in England and France. He is a major in the National Guard and is presently New Mexico State Signal Officer.

CLEM L. RAWLINS, JR. to supervisor of Tonopah Land Range

5216-3. Optical Measurements Division.

For the past five years Clem has been with Sandia as a technician.

Immediately prior he was a real estate and

insurance salesman in Ogden, Utah. After World War II Clem was general manager or account executive of radio stations in Ogden, Salt Lake City and Laramie,

From 1941 to 1946 Clem worked for Lockheed Aircraft in Burbank, Calif. as a flight service mechanic. He also served three years overseas during that period as Lockheed factory representative attached to P-38 groups in England.

Clem studied Business Administration at Utah A&M College.

ROBERT R. SOWELL to supervisor of Organic Chemistry Divi-

sion 1625, Material Standards Department.

Bob has been in the organic material laboratory since Oct., 1949, when he came to work for Sandia Corporation. He



was made section supervisor of 1621-3 in Sept., 1951.

Prior to coming to New Mexico Bob was attending graduate school and had a teaching fellowship at Oregon State College, in Corvallis. He obtained his Bachelor's degree in Zoology from the University of Oklahoma in 1948 and his Master's from Oregon State in 1949.

JOFFRE P. MYERS to supervisor of Section 1217-2, Project Division.



He started with the Corporation in July, 1952, as a mechanical engineer.

"Joff" served eight years in the Navy as an aircraft me-

chanic. He also was employed for several years by the Agriculture Conservation Association in both Eureka, Calif., and Pocatello, Ida., as a surveyor and crop checker.

From the University of Idaho he has a Bachelor's degree in Mechanical Engineering and Joff also studied forestry at Idaho State College.

He is a member of Sigma Tau honorary engineering society. Society of Automotive Engineers and American Society of Mechanical Engineers.

D. M. ELLETT to supervisor of Radiation and High Temperature Studies Division

1626. Materials Standards Department.

"Dee" has been at Sandia since 1946, first as a Second Lieutenant in the Corps of Engineers as -



signed to the Manhattan District, then three years as a civilian with the University of California. In 1949 he left New Mexico to complete his studies at Yale University, then returned in Aug., 1952, to join the Sandia Corporation staff. He has been active in shock and

vibration work and was the original secretary of the Shock and Vibration Committee here. Dee became supervisor of Dynamic Analysis Section 1613-4 some 15 months ago.

He holds a Bachelor's degree in Mechanical Engineering from the University of Virginia and Master's and Doctor's degrees from Yale University.

Dee is a member of Tau Beta Pi, engineering honorary society.

HADDON C. REDDING to supervisor of Accounting Methods



Section 4113-1, Accounting and Tabulating Methods Division, Business Methods Department. Since coming

to Sandia Corporation four years ago, Haddon has been in Accounting Methods, Accounting Division, Case

Cost and Budget Section, and was TDSR for Electrical Systems Department 1260. He was coordinator for the recent successful United Fund Drive

at Sandia. Haddon earned both Bachelor's and Master's degree in Business Administration from the University of Oklahoma. He is a Certified

Public Accountant. During WW II Haddon spent four years in the Army. He holds memberships in the American Institute of Accountants and the American Accounting Association.

Oct. 29 through Nov. 8

HOWARD E. MONTGOMERY to supervisor of Radiography and

Light Temperature Section 1626-2, Radiation and High Tempera ture Studies Division.

Howard came to Sandia in Jan., 1955, after 24 years with

the Luckenheimer Company, manufacterer of valves and engineering specialties in Cincinnati. He started with them as Physical Laboratory Supervisor and at the time he left was Plant Manager (Iron & Steel Division).

From 1951-53 Howard was chief metallurgist and later plant manager of the Taylor-Wharton Iron and Steel Co., High Bridge, N.J.

He has a Bachelor's degree in Chemical Engineering with metallurgy specialization from the University of Cincinnati.

Howard is a member of the Engineering Society of Cincinnati, the American Management Association and is a registered metallurical engineer in the state of

EUGENE R. FRYE to supervisor of Casting Resins, Adhesives and Sealants



Section 1625-1, Organic Chemistry Division. "Gene" joined the Corporation in May, 1954, as a designer in materials handling. The fol lowing August

he became a plastics processes engineer.

He was six years with U.S. Stonewear in Akron, O., and two years manager of their branch plant, Conneaut Rubber and Plastics Co., Conneaut, O.

During World War II Gene served in the Army Ordnance

His Bachelor's degree in Mechanical Engineering is from the University of Akron.

Gene is a member of the American Society of Mechanical Engineers.

ank A. Toya bbert A. Velasquez

Electronic Brain . . .

(Continued from page one) ties. George D. Horne, Jr., and Robert Lynes are supervisors of the two EDPM Sections.

Answers While You Wait Once this basic data is fed into the equipment's 20,000 digit memory or stored on magnetic tape, questions may be answered or

problems solved while you wait. These answers may come forth from the machine at a staggering rate. EDPM can answer 441,000 yes-or-no type questions in 30 seconds. The questions are simple, but thousands of such questions may be necessary to the solution.

A number of new jobs will be created in connection with preparing vast amounts of information for input into the equipment and taking action on decisions and reports which the machine produces.

Another benefit of the machine will be enjoyed. No longer will it be necessary to store hundreds of thousands of punched cards used in other calculators. The machine itself will require only about 3000 square feet of space. It needs its own air conditioning system to contend with the heat its electronic system generates.

Lenthy Installation

C. W. Dickinson, Manager of the Business Methods Department which will have responsibility for operating the EDPM, says, must be realized that equipment of such far reaching possibilities is not installed quickly.

"The installation of the EDPM will enable us to issue important reports to management in a matter of hours or days where it now takes weeks. Further, information which we have not previously been able to produce because of its complexity will be available promptly. Because of the soaring needs for more and more information, the acquisition of this equipment has become almost mandatory.

"It is difficult to realize that a machine which is so versatile and rapid can be accurate," Mr. Dickinson says. He quotes the statement of its manufacturer on its accuracy, "If you count all its errors along with its volume of work, they would be comparable to one wrong number telephone call in New York City in two years.'

Service Awards

TEN YEAR PINS





Amadeo S. Ortiz 2112 Nov. 20

Daniel S. Cain 2483 Nov. 20





Donald K. McMillin 5532 Nov. 20

Harry M. Hunter 2551 Nov. 18

FIVE YEAR PINS

Nov. 16-22

John Paul 2711, Virginia R. Golding 7225, Dwayne R. Fry 2553, Dan C. Held 4152, C. R. Balistrere 5512, James D. Wade 2111, Ralph G. Bowers 2331, Donald Peacock 2411, Floyd H. Myron 2113.

Victor S. Gabaldar 2 Victor S. Gabaldon 2711, Lyle K. Porter 5251, Eugene B. Lopp 7412, Toni G. Montano 7413

Hubert J. Franklin 2231, Joseph Catallo 2419, Johnnie G. Apodaca 2232, Hugh A. Colvin 5120, Carlos B. Baca 7232.
George T. Mancuso 2124, Don D. Montgomery 4153, Erineo A. Pollack 2124, Jose S. Montoya 2711, R. K. Morrissey 2713, James F. Denson 7316, L. C. Trujillo 2351.

TWO YEAR CERTIFICATES

Nov. 16-22
Fred H. Sanders, Jr. 2124, Pablo C. Maes
2711, Willard A. Scranton 1632, Mary E.
Petrini 2331, Allie B. Whitmore 2419, Joseph
Lobato 2461, Henry W. Strege 2553.
Edmund Beach 2611, Celia R. Meredith 2353,
Walter R. Eden 2411, W. Antoinette Sale 5142,
Margerite T. Karpen 2461.

Nov. 23-29 Sophie Sanchez 3153, Alvin E. Kaping 2614, Ray L. Harrison 2441, Robert G. Newman 5112, Thomas F. Lonz 4122.

WELCOME **NEWCOMERS**

From Albuquerque:

V. Lucille Addison
Margaret M. Batsel
Thomas M. Bolz
Jack D. Burt
Jane F. Bustamente
Sally Ann Calder
Barbara A. Cannon 7225 7412 7412 2461 Barbara A. Cannon Jean M. Carmichael David L. Chavez Lucille R. Chavez 4112 2464 2419 2464 2711 7412 7225 5513 Dorothy Crosby ... Jerry W. Cummings Wanda A. Cummings Milford J. Davis Sharon R. Davis Lewis A. Faw Nancy T. Feight William D. Feldman Martha E. Foster ... Tony M. Gammon Richard L. Greeno Don L. Gorsline1253 Charles E. Gumley
John L. Gunby
Beatrice V. Haines
Jack F. Hammerstran
Bettie J. Hanrahan
Donald E. Harris .1451 .2351 .2721 .2544 .7315 2461 1253 E. Marie Hayden 2464 7225 7225 Maralyn L. Hunter
Robert O. Jenkins
Kenneth A. Johnson
Leroy L. Keck, Jr.
Dorothy J. Kempter
Doris H. Kokkes
Franklyn D. Krest
Betty J. Lagermann
Mayne L. Lewis
Adolfo E. Maes
Yvonne M. Maxwell
Flossie G. McCoy
Hugh I. McLaren
Harvey M. Miller 2461 7412 7224 2723 2225 7225 2331 2461 2461 7225 7232 Hugh I. McLaren
Harvey M. Miller
Jack M. Miller
Billy R. Moreland
Phyliss K. Munn
Julia F. Needham
Bobby G. Neeld
Margaret V. Potts
Maude A. Rafter 5524 .1461 .4113 .2461 Marvin E. Range ... Maurice E. Richards Larry D. Ross Emma V. Roybal ... 1246 2462 Samuel D. Samuelson Elizabeth Y. Shortell Paul L. Spencer Arthur Starz Gary G. Swagerty 7412 2711 7412

	/412
Hazel O. Walter	7225
Mac D. Weaver	7412
Charles E. Wimmer	7412
Louise S. Winner	7225
Emily W. Wood	7225
Geneva A. Worley	1253
James N. Volkman Hazel O. Walter Mac D. Weaver Charles E. Wimmer Louise S. Winner Emily W. Wood Geneva A. Worley Marcella L. Zahn	7225
Donald W. Commons of Oakland Arthur D. Knowles of Coronado	2543
Arthur D. Knowles of Coronado	7111
Colorado	2002
Richard D. McKee, Denver	7412
Delaware	
Joseph W. McDowell of Dover	2514
Georgia	
James H. Marks, Jr. of Dalton	1422
Idaho	
Gordon Faust of Couer d'Alene	7323
Illinois	1064
Melvin C. Johnson of Chicago	1204
Melvin C. Johnson of Chicago Donald R. MacKenzie of Chicago John P. Moffett of Galesburg	0142
John P. Mottett of Galesburg	2151
Norman A. Mozley of Park Forest.	2513
Indiana	7411
Charles T. Radigan of Indianapolis.	/411
Kansas	2000
Frank R. Blair of Santana	7412
Thomas E. Henderson of Wichita	2153
Clifton B. Kinabrew of Kansas City.	5531
Thomas E. Henderson of Wichita Clifton B. Kinabrew of Kansas City. Robert Thimm of Wichita	2154
Louisiana	
Cecil S. Sonnier of Lafayette	1243
Maryland	
Raymond Fry of Chevy Chase	7/12
Massachusetts	7000
Francis A. Gunn of Arlington	7232
Missouri	
Earl G. Smith of Fenton	2153
Earl G. Smith of Fenton	7412
New Mayles	
New Mexico	2452
Charles Sanchez of Santa Fe	2452
Charles Sanchez of Santa Fe	
Charles Sanchez of Santa Fe	
Charles Sanchez of Santa Fe	1282
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Less Getz of Chillicothe	1282
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Less Getz of Chillicothe	1282
Charles Sanchez of Santa Fe New York Burdett K, Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D, Grover of Columbus.	1282 1284 1217
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohia Jesse Getz of Chillicothe Robert D. Grover of Columbus. Glenn E. Richards of Lima	1282 1284 1217
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D. Grover of Columbus Glenn E. Richards of Lima Pannsylvania	1282 1284 1217 1245
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D. Grover of Columbus Glenn E. Richards of Lima Pennsylvania Dale G. Ahlstrom of Glenside	1282 1284 1217 1245
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D. Grover of Columbus Glenn E. Richards of Lima Pennsylvania Dale G. Ahlstrom of Glenside Texas Texas	1282 1284 1217 1245
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D. Grover of Columbus Glenn E. Richards of Lima Pennsylvania Dale G. Ahlstrom of Glenside Texas Lawrence S. Johnson of Amarillo	1282 1284 1217 1245 1611
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D. Grover of Columbus Glenn E. Richards of Lima Pennsylvania Dale G. Ahlstrom of Glenside Texas Lawrence S. Johnson of Amarillo Ray Reed of Austin	1282 1284 1217 1245 1611
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D. Grover of Columbus Glenn E. Richards of Lima Pennsylvania Dale G. Ahlstrom of Glenside Texas Lawrence S. Johnson of Amarillo Ray Reed of Austin Virginia	1282 1284 1217 1245 1611 1222 5131
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D. Grover of Columbus Glenn E. Richards of Lima Pennsylvania Dale G. Ahlstrom of Glenside Texas Lawrence S. Johnson of Amarillo Ray Reed of Austin	1282 1284 1217 1245 1611 1222 5131
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D. Grover of Columbus. Glenn E. Richards of Lima. Pennsylvania Dale G. Ahlstrom of Glenside Texas Lawrence S. Johnson of Amarillo Ray Reed of Austin Virginia Willard Koone of Arlington. Washington	1282 1284 1217 1245 1611 1222 5131 1245
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D. Grover of Columbus. Glenn E. Richards of Lima. Pennsylvania Dale G. Ahlstrom of Glenside Texas Lawrence S. Johnson of Amarillo Ray Reed of Austin Virginia Willard Koone of Arlington. Washington	1282 1284 1217 1245 1611 1222 5131 1245
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D. Grover of Columbus. Glenn E. Richards of Lima. Pennsylvania Dale G. Ahlstrom of Glenside Texas Lawrence S. Johnson of Amarillo Ray Reed of Austin Virginia Willard Koone of Arlington. Washington	1282 1284 1217 1245 1611 1222 5131 1245
Charles Sanchez of Santa Fe New York Burdett K. Stearns of Buffalo Ohio Jesse Getz of Chillicothe Robert D. Grover of Columbus Glenn E. Richards of Lima Pennsylvania Dale G. Ahlstrom of Glenside Texas Lawrence S. Johnson of Amarillo Ray Reed of Austin Virginia Willard Koone of Arlington	1282 1284 1217 1245 1611 1222 5131 1245



YEAR'S HIGH SERIES at the San Mateo Lanes was bowled by the Lasswell-Schwab State Farm Mutual team of the Sandia Major Bowling league. L to R, first row: C. W. Campbell 7200, and A. Blain 2211. In the top row are C. B. O'Keefe 7232, D. B. Sparger 2234, C. D. Boxx 7113, and G. D. Horne 4113.

Industrial Engineers See Automation Movie

"This Is Automation," a movie by General Electric Corporation, will be shown at a meeting of the Albuquerque Area American Institute of Industrial Engineers Monday, Nov. 19.

The meeting will be held at Reddy's Rendezvous at Fifth and Silver downtown at 7:30 p.m., Al Kaping 2514, secretary, reports.

ASME Meets

The Albuquerque Chapter of the American Society of Mechanical Engineers will meet Wednesday, Nov. 21, at 7:30 p.m. in Rm. 101 of Mitchell Hall, UNM.

"Research and Development -Key to Strength and Air Power" is the title of the talk to be presented by an officer of the Air Force Special Weapons Command, Gene Gardner 2154, publicity chairman,

nnon Horseshoe Champ

poration Employee's Horseshoe Tournament is S. B. "Tony" Shannon, 2153. He defeated George Duffield, 5232, in final play during the noon hour last week.

Both men showed the pressure of the match during the first game as Duffield threw 25 per cent ringers and Shannon only 23 per cent. Shannon stepped into the lead in the second game, throwing 50 per cent ringers for that game and maintaining a 43.2 per cent average for the rest of the match.

- On his way to the finals Shannon defeated Charles McKeever, 7113, 4-0. In the quarter finals he downed Louis Eversgerd, 2232, 4-1 and Parker Burns, 7231, 4-1 in the semi-finals.

Duffield defeated Fonzo Cossell, 2412, the best match of the tournament, 4-3; William Boggs, 2351, in the quarter finals 4-1: and Roy Dell. 7412, in the semi-finals 4-2.

The superintendency singles champions are as follows:

Chad Miller 1200, Tony Shannon 2100. Louis Eversgerd 2200, William Boggs 2300, Fonzo Cossell 2400, Paul Callies 2500, Frank Bennett 2700.Charles Inberg 4100. George Duffield 5200. Chris Christopher 5500. Charles Mc-Keever 7100, Parker Burns 7200. Roy Dell 7400, and Robert Kennedy AEC.

Doubles superintendency champions are as follows:

Leon Wilson and Chad Miller 1200, Bill Sweatman and Stanley Eastman 2100. Ted Monahan and Dennis Sparger 2200, William Boggs and Mazario Gonzales 2300. Billy Rogers and Fonzo Cossell 2400, Paul Callies and Leo Adams 2500, Charles Inberg and Bill Prekker 4100.

Bill Ingram and Warren Taylor 5100, George Duffield and Al Gruer 5200, G. W. Hoskings and R. E. Brian 5500, Marle Elich and Jim Martin 7100, Parker Burns and Harvey Long 7200, Roy Dell and H. M. MacNeill 7400

Purdue Club Meets

Dining and dancing are on the program tonight when the Purdue Club of New Mexico meets at 7:30 p.m. at the KAFB Officer's Club. For reservations call W. F. Shoemaker, 1217, ext. 24161 or Alb.



SINGLES FINALISTS-S. B. "Tony" Shannon, 2153, left, waits as George Duffield tosses the last horseshoe pitch during the Sandia Corporation Horseshoe Singles Tournament finals. Shannon won the championship defeating Duffield four games out of six. Fonzo Cossell, 2412, seated right, was an official of the match.



GOLF CHAMPS of the Sandia Corporation Employees Golf league pose with their trophies. First row, L to R: Howard Lindell, 5533, captain of the winning B Flight team, and Chet Fornero, 7329, captain of the winning A Flight team and league champs. Top row, L to R: Dick Clark 5512, Lon Guintard 5533, both of B Flight, and Bob Angus 2335, A Flight. Bob Crabb 5242, member of A Flight team was not present when the photograph was taken.

SHOPPING CENTER SHOPPING CENTER SHOPPING CENTER SHOPPING CENTER SHOPPING CENTER

CLASSIFIED **ADVERTISING**

Deadline: Friday noon prior to week of publication.

RULES

- 1. Limit: 20 words
- 2. One ad per issue per person
- 3. Must be submitted in writing 4. Use home telephone numbers
- 5. For Sandia Corporation and AEC employees only
- 6. No commercial ads, please

Next Deadline: Noon, Nov. 23

LOST AND FOUND

FOUND, MASONIC TIE CLASP. Will the owner of the Masonic tie clasp that was lost approximately one year ago please contact Lost and Found, Ext. 26149.

FOUND: Gloves, white string cotton; gloves, w/leather palm; earring, amber stone; glass case, silver and blue. Lost and

LOST: Farring w/rhinestone; tie clasp, w/JSP; sunglasses /w-brown frame. Lost and Found, ext. 26149.

FOR SALE

GEIGER COUNTER, Precision Radiation In-strument Co., w/5 ft. prod. Ear phones, \$40. Thurmond, 1909 Lead SE Apt. 1, weekends or evenings.

IRONER—Universal 18" Automatic, \$11 or best offer. Sunberg, Alb. 9-2177.

2 BR. & DEN HOUSE, Garage, chickenhouse, fruit, 3% acre, irrigation, near grade & junior high, \$8500. Young, Alb. 2-1947.

5 RM. HOUSE, adobe, 30 acres w/2 out buildings, 40x60, 25 miles south, ½ down, \$14,000. Sanchez, Ext. 2-1145.

down, \$14,000. Sanchez, Ext. 2-1145.
FORD CONVERTIBLE, custom, shaved & louvered, RH, new WW, radiator, shroud, fan, heads, 3 inch chop. Lenz, Alb. 6-7037.
MICROPHONE, Schure 55-S, Jensen supertweeter and 16 ohm L-pad. Sunbeam automatic coffee-maker, 78 RPM classical records. Barbier, Alb. 9-1305.
ACCORDION, Soprani Petite, w/carrying case. Gray ivory, 31/2 octaves, \$65. Morgan, 1816 Gold SE, Alb. 3-6314 after 5.

CAMPING EQUIPMENT, 9x9 tent, gasoline cook stove w/stand, folding table, car top carrier, 2 venetian blinds. Waldorf, Alb. 2-8303.

BREAKFAST BOOTH, \$12 or trade for metal outdoor table & chairs. Higgins,

Alb. 5-7873.

ROTARY IRONER, \$50; Federal enlarger & darkroom equipment, \$40; floor polisher, \$30 or best offer. Dell, Alb. 7-4124.

DINING ROOM SET, Solid walnut, table, buffet, server, 6 chairs. Reasonably priced. Jeblick, Alb. 9-0165.

'54 BUICK Super Riviera, dynaflow, RH, 2-tone, ww. Davenport, Alb. 5-7708.

GUN, Remington 721; new 270 caliber, Redfield peep sights, \$75. McNeely, Alb.

TELEVISION, Raytheon table model with wrought iron stand, \$50. R-J type speaker enclousure, \$25. Stueber, Alb. 9-2414.

BINOCULARS, 6x30 w/case, new, \$15. Air compressor and hose, \$15. Mahogany dining table and pad, \$20. Lane, Alb. 9-3962.

TECHNICIAN'S TOOLS, complete set; six white shirts, 15½-32, and assorted bow ties. Page, Alb. 6-5837.

HEATER, 45,000 BTU Tempco space circulating; used 2 mos., \$65. Montoya, 352 Bernalillo.

51 HUDSON, sale or trade. Palachuk, 4404 2nd St NW, Apt. 3.
AUTOMATIC WASHER, ABC Model 50-G. Recently rebuilt, works perfectly. Sisler, 3157 44th Place, Sandia Base. Ext. 25173. TRUCK BOX EXTENSION for jeep; front jump seat, tune up set, spring mour for seat of jeep. Milton, Alb. 9-4586.

FRENCH DOORS, Set 2'x7' w/screen doors. \$30. Vega poles, pinon, 13' long, 8'' diameter, skinned, varnished, \$1.50 each. Dunn, Alb. 5-9213.

MOTORCYCLE, '51 BSA Golden Flash, Bluebook price \$380, my price \$300; Dunlop sportsters, skidplate, oil bath, air-filter. Charlton, Alb. 6-1865.

BOODLE BUGGY, \$15; Callapsible stroller, \$9; play pen and pad, \$7; high chair, \$8; crib, \$10. Calkins, Alb, 5-7089 after 6. LAWNMOWER, Craftsman, \$10; child's glideride, \$8. West, 9301 Alta Monte, NE, Alb. 9-1878.

MOTORCYCLE, '51 Triumph tiger 100. Snyder, Elrancho Trailer Village, 201 Wvo. SE after 5 p.m.

CHRISTMAS PRESENT, 5 mo. champion Beagle pup, housebroken, has shots, \$35. Universal travel iron, \$5. Hogue, 1435 Espejo, Alb. 9-1807.

SECTIONAL COUCH, green. Gibbs, Alb. WASHING MACHINE, Easy Spindryer, \$35. Rehbeck, Alb. 2-9178 after 5 p.m.

Renpeck, Alb. 2-91/8 after 5 p.m.
TELEVISION, new 17in., guaranteed, \$85.
Corney, Alb. 5-1490.
TRAILER, 2 wheel w/hitch. Needs repair, \$15. Electric ironer, \$15. Boy's 26" bicycle, \$10. Allen, 317 Mesilla NE, Alb. 6-4335.

MAHOGANY BOOKCASE, large, antique, 3 plate glass doors, \$45. Hill, Alb. 3-3493. WASHER, Bendix automatic, \$100. Cooper, Alb. 9-2356.

Alb. 9-2356.

RECEIVER, BC 348 or trade for RME 10-20 converter. Tilley, Alb. 9-2762.

TELEVISION, RCA 21" table model w/swivel table, \$135 Maytag automatic washer, \$100; occasional chair, \$15; kitchenware. Gravning, Alb. 5-8928.

DOBERMAN PINSCHER, male, young, thoroughbred, intelligent, cropped ears, all shots, \$30. Strand, Alb. 6-7371.

DOUBLE-COIL SPRINGS, pair of twin bed, \$15 ea. McCarthy, Alb. 9-2537. DELTA WORK SHOP, \$165. Chavez, 1517 Altez NE, Alb. 9-2392. HI-FI CHANGER, amplifier w/preamp and

speaker, custom components cabinet and \$50 new records for \$150. Harrison, Alb. 2-9112

VIOLIN w/case, \$40. Worley, 2732 Charleston NE, Alb. 9-4422 after 5:30 p.m.

MOTORCYCLE, Harley Davidson, small model, \$100. Graves, 608 Cardenas Dr. SE, Alb. 5-4243 after 5:30 p.m. BEAGLE PUPS, get your family a hound dog for Christmas, registered, \$25 each. Welker, Alb. 9-1179.

SKI BOOTS, size 9½, European made, used twice, \$12. Rosenberg, Alb. 3-9812.

CONCRETE MIXER w/engine, holds one-quarter yard, \$50. Rozensky, 1443 Saunders Rd. SW. BABY BED & MATTRESS, \$10. Johnson, Alb. 5-2762.

755 CHEVROLET, 2 dr., RHO, consider trade. Campbell, 1708 Buena Vista Dr. SE, Alb. 2-7347.

'47 JEEP STATION WAGON, w/heater, overdrive, \$300. Thompson, 817 Am-herst Dr. NE, Alb. 5-5282.

GAS FLOOR FURNACE, Security, 35,000 BTU output w/thermostat; gas floor furnace, Coleman, 24,500 BTU output. Gas range. Keyser, Alb. 6-1285.

GIRL'S BICYCLE, 20 inch, \$15; boy's ice skates, \$7, used one season. Emig, Alb.

COLLIE PUPPIES, Tri & Sable, 8 weeks old, AKC registered, outstanding pedigree. Meek, Alb. 2-1185.

MEMBERSHIP IN CROSSROAD FLYING CLUB, \$375. Two Tri-Pacers; one 1956 model, Licensed pilots only. Gowdey, Alb. 3-8216.

3-8216.

8" TILTING ARBOR SAW w/new ½ H.P. motor, \$65. Sandin, Alb. 6-8015.

TRANSMITTER—Amateur, 300 watts, professional-like, good performance. In operation—all bands. Scates, Alb. 6-4740 after 6 p.m.

BEAGLE PUPPIES, AKC registered, 8 weeks old. Kindschi, Alb. 6-0531.

'53 DODGE, 4 dr., V-8, RH, Gyro. trans., dual exhaust, \$675. Revels, Alb. 4-3033.

SKIS w/safety binding. 9½M ski boots.

SKIS w/safety binding, 9½M ski boots. Singer hand vacuum w/attachments, AF overcoat, blouse, 39R. Hillenbrand, Alb. 6-4715.

6-4715.
TRANSMITTER, Hallicrafters, 150 watts CW, 120 watts phone, 20 meter coils, \$100. Grab, Alb. 6-9515.
COLLIE PUPPIES, AKC registered, will be old enough for Christmas delivery. Deposit will hold. Hakes, Alb. 6-2114.
TRIMMET. Standard Blessing, used 6 mos. TRUMPET, Standard Blessing, used 6 mos. Baggett, Alb. 5-3536.

CHRISTMAS PUPPIES, now accepting de-posits on Beagle puppies for Christmas. Finest ancestory obtainable. Well worth double our price. Donaldson, Ext. 46233.

ACCORDION, 120 Base Bonnilli w/case, 3 yrs. old, used very little, \$150, or will trade. Denish, Alb. 6-1559.

WASHER, Maytag wringer, \$35. Large outdoor play pen, \$10. Walker, 3086 38th Place, Ext. 49271. RANGE, Apt. size; 6' Frigidaire, reason-able price. Poindexter, Alb. 9-1444.

DINETTE TABLE, Chromium w/drop leaf formica top. Closed: 20x30 inches; open, 30x47 inches, \$20. Judd, Alb. 4-8143.

FOR RENT

WOMEN'S DÖRMITORY ROOMS, furnished; kitchen, laundry facilities, linen, maid service, television, walking distance to service, television, walking alsonice work, \$45/mo. Base Housing Office, Ext.

2 BR. ADOBE, modern, for leace; shade, garage, farm buildings, three irrigated acres, near schools. Bosque Farm. Bowman, Alb. 6-6396 after 5.

WANTED

PHONOGRAPH, Three speed automatic. Beeson, Alb. 5-5349.

ENCYCLOPEDIAS, Child-Craft or other children's reference books. Winter, Alb. 4-4456.

HOME FOR PUPPIES, part Dalmatian, to give away. Cordova, Alb. 6-9596 after 5:30.

RIDERS from vicinity Telesfor Road and Arnold to Sandia. Mann, Ext. 2-4239.

PLAY PEN and baby swing. Trade 16" boy's and 20" girl's bicycle for 24" boy's or 26" girl's bicycle. Houghton, Alb. 9-3386.

boy's or 26" girl's bicycle. Houghton, Alb. 9-3386.

RIDE from vicinity Wyoming and Lomas NE to Bldg. 880 or 887. Jean Simpson,

TO TRADE Indian rug or "73" Winchester for 38 special. Trade 38 special empty brass for other empty brass. Pritchard, Alb. 6-5667.

Alb. 6-5667.

ENCYCLOPEDIAS, published since WW II, in good condition. Fesler, Alb. 9-1020.

BABY SITTING, care for 1 or 2 pre-school children in my home 5 days week. Grey, 120 Pennsylvania, Alb. 5-3470.

RIDE from vicinity 417 Gen. Chenault NE to gate 8. Hayes, Alb. 8-1536.

BABY SITTING will care for 1 or 2 pre-

BABY SITTING, will care for 1 or 2 pre-school age children during the day. Hut-ton, Alb. 6-8366.

ton, Alb. 6-8366.

BABY SITTING, will care for child in my home. Close to base. Vigil, Alb. 9-4008.

DRIVER to join car pool from vicinity of Five Points Rd. SW or Goff and Beverly SW. Lopez, Alb. 3-8550.

TYPEWRITER, used or comb. radio and record player. Will trade new Schick electric shaver. Prawitz, Alb. 6-6497.

RIDER to Bldg. 800 from 1400 N. Girard to Lomas, to Washington, Marquette, San Mateo, south to Central. Burns, Alb.

RIDE from Candelaria and Arno to Bldg. 880. Esther Moya, Alb. 4-3575. RIDERS vicinity of Blake Road, Isleta Highway and Bridge. Mary Guajardo, Ext. 3-3159.

JOIN or form car pool to Bldg. 892 from vicinity of Aspen and Wyoming NE, Mark Gens, Alb. 4-2231.

RECORD CHANGER, used 45 RPM RCA. Reidel, Alb. 9-4460.

RIDE vicinity of Central (1700 Block) and Gold SE. Sharon Davis, Alb. 2-8775. RIDE to Bldg. 880 from 500 block of Girard SE. Shinnick, Alb. 3-8267.

RIDE from 10101 Propps Drive NE (in Snow Heights 2) to Bldg. 892. Claire Missel-witz, Ext. 3-7150.

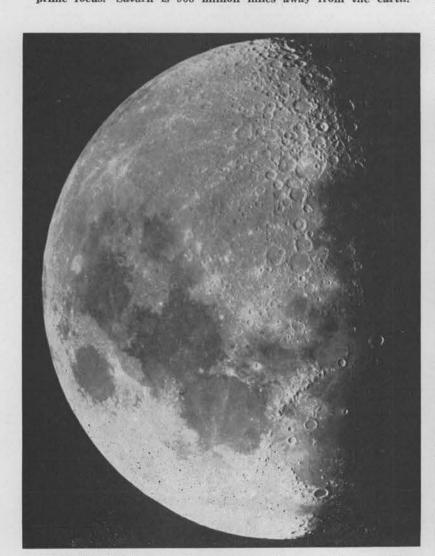
New Telescope Camera Stalks Jet Planes, Mars, Saturn, Moon



HIGH FLYING JET at a range of approximately 40,000 feet as photographed with the 24-inch telescope. This picture is indicative of the results that may be obtained when the tracking camera is used during ballistics tests. Exposure is 1/1000th second, no filter.



RINGS OF SATURN are clearly visible in this photograph taken through Sandia's 24-inch tracking telescope. The exposure was 2 seconds on Panatomic X film. This image is enlarged approximately 110 times from the image as formed by the telescope at its prime focus. Saturn is 968 million miles away from the earth.



MOON CRATERS and surface detail are sharp and clear as photographed through the 24-inch tracking telescope camera. The moon, some 24,000 miles away was photographed on Adox KB14 film at 1/500th second exposure. The camera was a Hexacon 35 mm focused through the telescope lens. The moon image was approximately 11/8 inches in diameter on the exposed film.

Since Sept. 7, the 24-inch tracking telescope camera developed by Sandia Corporation has been undergoing precision testing by its designers, the Optical Development Section, 5221-1, headed by Dan Parsons.

"The instrument has checked out optically and mechanically as well or better than we had hoped," Dan said this week. "We have taken hundreds of photographs of high flying aircraft with the telescope that indicate it will be a valuable addition in gathering photographic information during field testing operations."

"Shoots" Jets

The group has photographed speeding jet aircraft as far as 10 miles away. The pictures are clear and sharp—indicative of the results that will be gained when the eye of the telescope is trained on a falling bomb or missile. Its 24-inch diameter and 10-foot focal length are producing pictures showing much more detail than has been possible with smaller tracking cameras now in operation at Sandia's test sites.

Using a special device which locks the telescope on the orbit of celestial bodies, the Optical Development group has had excellent results with photographs of Mars, Saturn, the Moon, nebulae and star clusters. Sighting on the stars to prove and test the optic system of tracking cameras is standard practice, Dan said.

R & D Tool

When final tests are completed on this instrument, it will be used as a research and development tool to assist in the design of other tracking telescope systems.

Such an instrument, using the second of two 24-inch fused quartz mirrors owned by the Corporation, is now under construction, Dan said. These two are the largest fused quartz mirrors in existence and are the heart of the 24-inch optic system. Fused quartz is the best material for telescope mirrors but difficulties encountered in casting fused quartz limits the size.

The instrument—with the exception of the drive motors in the stand and the optics—was completely designed and built at Sandia. In praising the work of the Model Shops and Foundry, Dansaid, "Workmanship throughout was excellent—and the work of the shops helped materially in getting us a fine instrument."



CERTIFICATE OF APPRECIATION was presented to Sandia Corporation by the American Legion in recognition of the Corporation's "outstanding record in the employment of physically handicapped veterans." Presenting the award to James W. McRae, (right) president of Sandia Corporation, was Mike Alrid, New Mexico State Commander of the American Legion.

Coronado Club Planning Traditional Thanksgiving Dinner; Dance Nov. 17

Writes Article for Bureau of Standards Quarterly Journal

A technical paper written by Don Morrison, 5121, appeared recently in the quarterly journal of the National Bureau of Standards, Department of Commerce.

Don's article was entitled, "A Method for Computing Certain Inverse Functions." The name of the publication is "Mathematical Tables and Other Aids to Computations."

Two Sandians Serve on National Committees For Technical Writers

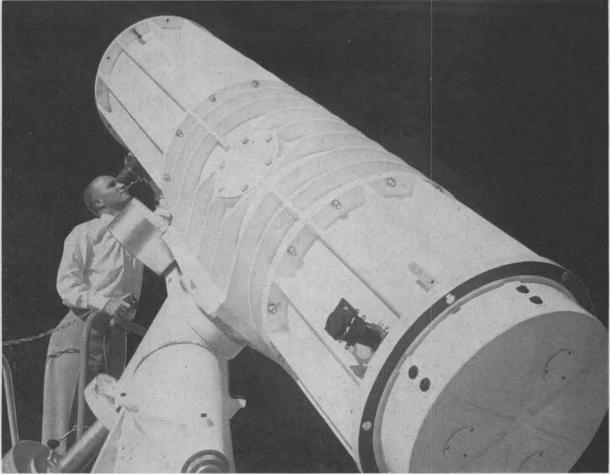
In New York this week are Earle George, 7122, and Max Weber, 5120, attending the national convention of the Society of Technical Writers. George, president of the Albuquerque Chapter of STW, will serve on the national standards committee. Weber, past president of the local branch, has been appointed to the national membership committee.

A "Gobble Hobble" and Thanksgiving Dinner are events of note on the Coronado Club calendar for these next two weeks, plus a science fiction thriller, "It Came From Outer Space."

The Gobble Hobble, traditional Thanksgiving Dance, will be held at the Coronado Club from 9 to 1 tomorrow night, featuring the music of Al Hamilton and his orchestra. Admission for members is 50 cents and \$1 plus tax for guests.

Open to all Sandians, as well as club members, is the annual Thanksgiving Dinner, which includes on the menu such succulent items as Prime Ribs of Beef, Baked Ham, and Turkey, of course, as well as all the trimmings. The adult dinner is priced at \$2.75 per person, with a children's dinner at \$1.50. The dinner will be served from 4 to 7 on Nov. 22.

"It Came From Outer Space," starring Richard Carlson and Barbara Rush, is the feature film at Family Night Nov. 25. This film epic of a lone scientist's battle against space creatures will start at about 6:30 p.m.



GIANT TRACKING CAMERA developed by Sandia Corporation as a research and development tool on telescope tracking systems is undergoing precision tests by its designers, the Optical Development

Section, 5221-1. Here Dan Parsons looks through the eyepiece of the telescope. The instrument uses a 24-inch fused quartz mirror in a 10-foot focal length. The tube is foundry cast aluminum.